

Serial No. 09/869,389

PF980093

REMARKS/ARGUMENTS

Claims 16-33 remain pending in this application.

Rejection of Claims 16-18 and 21-33 under 35 U.S.C. 102(e)

Claims 16-28 and 21-33 are rejected under 35 U.S.C. 102(e) as being anticipated over Moriyama et al. (U.S. Patent No. 6,067,282).

The present invention as claimed in claim 16 provides a digital video reception device. The device includes means for receiving and demultiplexing a multiplexed digital stream as well as means for storing. The storage means are comprised of two file systems having different recording block sizes. The recording is performed in blocks comprising two areas of fixed size, one of which is reserved for video data and the other for audio data. Once a quantity of video data corresponding to the size of the video area has been demultiplexed, a complete block is written, regardless of the quantity of audio data received at that moment. Because of the arrangement of the areas inside a block, the nature of the PES packets recorded therein is known, thus avoiding labeling of each PES packet (page 2, lines 5-13).

Moriyama et al. describe an information recording medium on which information can be recorded in a hierarchical structure and on which text information can also be recorded in relation with the recorded information at each hierarchical layer. "Record" information pieces are recorded logically independent of each other and constitute a hierarchical structure of hierarchical layers. "Layer" information pieces specify one of the hierarchical layer. "Kind" information pieces indicate the kind of information relating to the record information pieces. The layer information pieces are arranged in an order in accordance with the hierarchical structure, and the kind information pieces are arranged in pair with the layer information pieces indicating the layer of the corresponding record information piece so as to specify the logical position of the corresponding record information piece within the hierarchical structure.

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The Office Action contends that Moriyama et al. disclose a digital video reception device comprising means of reception and of demultiplexing a multiplexed digital stream and means of storage comprising two file systems having different recording block sizes. Applicant respectfully disagrees. While Moriyama et al. describe an information recording medium on which information can be recorded in a hierarchical structure, and on which text information can also be recorded in relation with the recorded information at each hierarchical layer, Moriyama et al. does not disclose a recording device with a "means of storage comprising two file systems having different recording block sizes" as recited in claim 1 of the present invention. In Moriyama et al., "Since data capacity of audio information is generally much smaller than that of the video information, data of the plural CDs may be recorded on a single DVD" (col. 18, lines 11-14). According to the Office Action, the video file size is larger than the audio file size in Moriyama et al. Having a video file size larger than an audio file size, however, does not suggest the use of two file systems having different recording block sizes as in the present claimed invention. In fact, file size is not the same as block size. As described in the present specification, each recording block comprises a first area for recording the video packets and a second area for recording the audio packets (page 3, lines 6-11). Block size corresponds to the partitioning of the recording medium (page 15, line 20-23 and Fig 5). Any recording medium can be partitioned in a certain number of blocks of a fixed size in order to enable its management by a file system. The present claimed invention recognizes that a single file system is not efficient when recording different types of data having a big difference in size, especially when one type of data is video data. Therefore, the present claimed invention proposes two file systems in order to manage two types of data. This is entirely different from Moriyama et al. In Moriyama et al., the data structure is arranged in an efficient way to be accessed. However, Moriyama et al. neither disclose nor suggest that the recording medium is partitioned into recording blocks of different sizes. Thus, Moriyama et al. neither disclose nor suggest "means of storage comprising two file systems having different recording block sizes" as recited in the present claimed invention.

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Claim 28 provides a method for the apparatus described in claim 16. Claim 28 provides for recording audio and video data in a digital television receiver. Audio and video packets relating to one and the same program are demultiplexed. The demultiplexed video data in a first memory and the demultiplexed audio data in a second memory are simultaneously accumulated. When a predetermined quantity of video data in the first memory is obtained, accumulation in the memories is stopped. Video data accumulated in the first memory and audio data accumulated in the second memory are recorded in a first area of a block whose fixed size is equal to said predetermined quantity and in a second area of this block, respectively. The size of this second area is fixed and chosen in such a way that it is greater than or equal to the maximum quantity of audio data which can be accumulated while obtaining the predetermined quantity of video data.

In regards to claim 28, the present claimed invention accumulate video data and audio data in separate memories, and record both data in the same block. Moriyama et al., however, is not concerned with recording data accumulated in said first memory in a first area of the block, and the audio data accumulated in the second memory in a second area of the same block. The principle of recording both audio and video data in the same block is to provide a means of storage such that a first partition provides mainly random access and implementing multiple indirect addressing while a second partition is reserved for audio and video stream recording for a mainly sequential access and implementing simple indirect addressing. The video and audio data accumulated in memory are recorded into the same block of this second partition. Having two partitions with different characteristics makes it possible to optimize recording and reading depending on the nature of the data. Specifically, the data of audio and video type primarily require sequential access, whereas data of 'service' or 'private' type, for example, databases for constructing a program guide or else program code files, can be managed more efficiently with a random access. It is thus possible to store data of different type on a single medium, for example a hard disk (page 3, lines 17-24). Moriyama et al. neither disclose nor suggest the claimed "recording of the video data accumulated in said first memory and of the audio data accumulated in the second memory respectively in a first area of a block whose fixed size is equal to said

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predetermined quantity and in a second area of this block" as recited in claim 28 of the present invention.

Regarding claim 32, the present claimed invention provides an audio and video data recording device. The device includes a double file system. A first system is adapted to files of an audio/video stream type and a second file system is adapted to files of smaller size than the audio/video streams. As described above in regards to claim 16, Moriyama et al. does not disclose a recording device having a double file system as in the present claimed invention. In the present claimed invention, each recording block comprises a first area for recording the video packets and a second area for recording the audio packets (page 3, lines 6-11). Block size corresponds to the partitioning of the recording medium (page 15, line 20-23 and Fig 5). Any recording medium can be partitioned in a certain number of blocks of a fixed size in order to enable its management by a file system. The present claimed invention recognizes that a single file system is not efficient when recording different types of data having a big difference in size, especially when one type of data is video data. Therefore, the present claimed invention proposes two file systems in order to manage two types of data. This is entirely different from Moriyama et al. In Moriyama et al., the data structure is arranged in an efficient way to be accessed, but Moriyama et al. neither disclose nor suggest that the recording medium is partitioned into recording blocks of different sizes. Thus, Moriyama et al. neither disclose nor suggest "a double file system wherein a first system is adapted to files of an audio/video stream type and wherein a second file system is adapted to files of smaller size than the audio/video streams" as recited in claim 32 of the present invention.

Claim 33 is allowable for the same reasons as explained above in regards to claim 32. Furthermore, as discussed above, Moriyama et al. do not disclose a recording device having a double file system. Thus, Moriyama et al. neither disclose nor suggest "a rerecordable disk divided into sectors, data blocks of the first file system having a size of at least 256 sectors, data blocks of the second file system having a size of a few sectors" as recited in claim 33 of the present invention.

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In view of the above remarks it is respectfully submitted that there is no 35 USC 112 compliant enabling disclosure in Moriyama et al. showing the above discussed features. It is thus further respectfully submitted that independent claims 16, 28 and 32 are patentable over Moriyama et al. Since claims 17-18, 21-27, 29-31 and 33 are dependant on independent claims 16, 28 and 32, it is respectfully submitted that these claims are also allowable for the same reasons discussed above with respect to claims 16, 28 and 32. Thus, it is further respectfully submitted that this rejection is satisfied and should be withdrawn.

Rejection of Claims 19-20 under 35 U.S.C. 103(a)

Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama et al. (U.S. Patent No. 6,067,282) in view of admitted prior art.

Claim 19 provides a digital video reception device that receives and demultiplexes a multiplexed digital stream and stores the demultiplexed stream on two file systems having different recording block sizes. The first file system is adapted to sequential access of the recorded data and the second file system is adapted to random access of the data recorder.

The Office Action contends that Moriyama et al disclose the limitations of claims 19 and 20 except adapting the first file system to sequential access of the recorded data and simple indirect accessing, while adapting the second file system to random accessing and multiple indirect accessing. Moriyama et al., as discussed above in regards to claim 16, neither disclose nor suggest "means of storage comprising two file systems having different recording block sizes" as recited in the present claimed invention.

In view of the above remarks it is respectfully submitted that there is no 35 USC 112 compliant enabling disclosure in Moriyama et al. that makes the present claimed invention unpatentable. It is thus further respectfully submitted that independent claim

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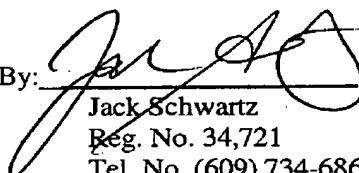
16 is patentable over Moriyama et al. Since claims 19 and 20 are dependant on independent claim 16, it is respectfully submitted that these claims are also allowable for the same reasons discussed above with respect to claim 16. Thus, it is further respectfully submitted that this rejection is satisfied and should be withdrawn.

The applicant respectfully submits, in view of the above arguments, that the all arguments made by the Examiner have been addressed and this rejection should be withdrawn. Therefore, the applicant respectfully submits that the present claimed invention is patentable.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

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